

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. (Currently amended) An apparatus comprising:  
an inductor;  
an electrically conductive enclosure electromagnetically shielding the inductor, the electrically conductive enclosure having an aperture at least as large as the inductor, the aperture being substantially centered around a projected surface of the inductor; and  
one or more electrically conductive links extending across the aperture and electrically coupled to the electrically conductive enclosure,  
wherein the aperture is formed in an electrically conductive plate of the electrically conductive enclosure, and  
wherein the electrically conductive plate is formed by a plurality of continuous conductive patterns, each of the continuous conductive patterns being substantially concentric with respect to the aperture.
2. (Original) The apparatus, as recited in claim 1, wherein the aperture is substantially parallel to a plane of current flow in the inductor.
3. (Original) The apparatus, as recited in claim 1, wherein the aperture has an approximate diameter determined by adding an approximate outer diameter of the inductor to an approximate inner diameter of the inductor.
4. (Previously Presented) The apparatus, as recited in claim 1,  
wherein the electrically conductive links reduce an effect of electromagnetic signals external to the electrically conductive enclosure on the inductor.
5. (Previously Presented) The apparatus, as recited in claim 1, wherein the electrically conductive links reduce coupling in the inductor from external sources by approximately 6dB.

6. (Previously Presented) The apparatus, as recited in claim 1, wherein the electrically conductive links are approximately 5 $\mu$ m wide.

7. (Previously Presented) The apparatus, as recited in claim 1, wherein the electrically conductive links are formed in the one or more traditional integrated circuit layers.

8. (Original) The apparatus, as recited in claim 1, wherein the electrically conductive enclosure includes a top plate, a bottom plate, and sidewalls.

9. (Canceled)

10. (Original) The apparatus, as recited in claim 8, wherein the aperture is formed in the bottom plate.

11. (Original) The apparatus, as recited in claim 8, wherein the bottom plate is formed in one or more integrated circuit metal layers.

12. (Original) The apparatus, as recited in claim 8, wherein the top plate is formed in a metal layer.

13. (Original) The apparatus, as recited in claim 8, wherein the top plate is formed in a redistribution layer.

14. (Original) The apparatus, as recited in claim 8, wherein the top plate is formed in a package substrate.

15. (Original) The apparatus, as recited in claim 1, wherein the inductor is formed at least partially in one or more metal layers of an integrated circuit die thicker than others of the metal layers.

16. (Original) The apparatus, as recited in claim 1, wherein the inductor is formed at least partially in one or more redistribution layers formed on an integrated circuit die.

17. (Original) The apparatus, as recited in claim 1, wherein the inductor is formed on an integrated circuit die.

18. (Original) The apparatus, as recited in claim 17, wherein a conductor forming the inductor is 10 $\mu$ m wide.

19. (Original) The apparatus, as recited in claim 17, wherein the aperture and the inductor are effectively spaced at least 10.25 $\mu$ m apart.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Currently amended) ~~A computer readable medium encoding an integrated circuit product, the integrated circuit product~~ An apparatus comprising:

an inductor;

an electrically conductive enclosure electromagnetically shielding the inductor, the electrically conductive enclosure having an aperture at least as large as the inductor, the aperture being substantially centered around a projected surface of the circuit element; and

one or more electrically conductive links extending across the aperture and electrically coupled to the electrically conductive enclosure,

wherein individual ones of the electrically conductive links are coupled to each other by an electrically conductive link perpendicular to the individual ones of the electrically conductive links.

24. (Currently amended) A method of manufacturing an integrated circuit product comprising:

forming an inductor;

forming an electrically conductive enclosure electromagnetically shielding the inductor, the electrically conductive enclosure having an aperture at least as large as the inductor, the aperture being substantially centered around a projected surface of the inductor; and

forming one or more electrically conductive links extending across the aperture and electrically coupled to the electrically conductive enclosure,

wherein the aperture is formed in an electrically conductive plate of the electrically conductive enclosure,

wherein the electrically conductive plate is formed by a plurality of continuous conductive patterns, each of the continuous conductive patterns being substantially concentric with respect to the aperture.

25. (Original) The method, as recited in claim 24, further comprising:

forming the aperture substantially parallel to a plane of current flow in the inductor.

26. (Original) The method, as recited in claim 24, further comprising:

forming the aperture having an approximate diameter determined by adding an approximate outer diameter of the inductor to an approximate inner diameter of the inductor.

27. (Currently amended) The method, as recited in claim 24, ~~further comprising:~~ wherein the electrically conductive links reduce an effect of electromagnetic signals external to the electrically conductive enclosure on the inductor.

28. (Previously Presented) The method, as recited in claim 24, wherein the electrically conductive links reduce coupling in the inductor from external sources by approximately 6dB.

29. (Currently amended) The method, as recited in claim 24, further comprising:

forming the electrically conductive links approximately 5µm wide.

30. (Currently amended) The method, as recited in claim 24, further comprising:  
forming the electrically conductive links in one or more traditional integrated circuit  
layers.
31. (Original) The method, as recited in claim 24, further comprising:  
forming the electrically conductive enclosure including a top plate, a bottom plate, and  
sidewalls.
32. (Canceled)
33. (Original) The method, as recited in claim 31, further comprising:  
forming the aperture in the bottom plate.
34. (Original) The method, as recited in claim 31, further comprising:  
forming one or more integrated circuit metal layers on an integrated circuit die; and  
forming the bottom plate in the one or more integrated circuit metal layers.
35. (Previously Presented) The method, as recited in claim 31, further comprising:  
forming a metal layer on an integrated circuit die; and  
forming the top plate in the metal layer.
36. (Original) The method, as recited in claim 31, further comprising:  
forming a redistribution layer on an integrated circuit die; and  
forming the top plate in the redistribution layer.
37. (Original) The method, as recited in claim 31, further comprising:  
forming a package substrate; and  
forming the top plate in the package substrate.

38. (Previously Presented) The method, as recited in claim 24, further comprising:  
forming one or more metal layers on an integrated circuit die thicker than others of the  
metal layers; and  
forming the inductor at least partially in the one or more thicker metal layers.

39. (Original) The method, as recited in claim 24, further comprising:  
forming redistribution layers on an integrated circuit die; and  
forming the inductor at least partially in one or more redistribution layers.

40. (Original) The method, as recited in claim 24, further comprising:  
forming the inductor using a conductor that is 10 $\mu$ m wide.

41. (Original) The method, as recited in claim 24, further comprising:  
forming the aperture effectively spaced from the inductor by at least 10.25 $\mu$ m.

42. (Currently amended) An apparatus comprising:  
means for electrically coupling nodes of an integrated circuit;  
means for electromagnetically shielding the coupling means; and  
means for reducing current induced in the shielding means in response to the coupling  
means, the induced current generating an electromagnetic field counteracting an  
electromagnetic field generated by the coupling means,  
wherein the means for electromagnetic shielding comprises an aperture and one or more  
electrically conductive links extending across the aperture,  
wherein the aperture is formed in an electrically conductive plate of the means for  
electromagnetically shielding,  
wherein the electrically conductive plate is formed by a plurality of continuous  
conductive patterns, each of the continuous conductive patterns being  
substantially concentric with respect to the aperture.

43. (Canceled)

44. (Canceled)

45. (Previously Presented) The apparatus, as recited in claim 42, wherein the aperture is at least as large as the means for electrically coupling and is substantially centered around a projected surface of the means for electrically coupling.

46. (Currently amended) The apparatus, as recited in claim [[1]] 23, wherein the aperture is formed in an electrically conductive plate of the electrically conductive enclosure.

47. (Currently amended) The apparatus, as recited in claim 46, wherein the electrically conductive plate is formed by a plurality of continuous conductive patterns, each of the continuous conductive patterns being substantially concentric with respect to the aperture.

48. (Previously Presented) The apparatus, as recited in claim 1, wherein individual ones of the electrically conductive links are coupled to each other by an electrically conductive link perpendicular to the individual ones of the electrically conductive links.

49. (Currently amended) The ~~method~~ apparatus, as recited in claim [[20]] 23, wherein the aperture is formed in an electrically conductive plate of the electrically conductive enclosure.

50. (Currently amended) The ~~method~~ apparatus, as recited in claim 49, wherein the electrically conductive plate is formed by a plurality of continuous conductive patterns, each of the continuous conductive patterns being substantially concentric with respect to the aperture.

51. (Currently amended) The ~~method~~ apparatus, as recited in claim [[20]] 23, wherein the aperture is at least as large as the inductor and is substantially centered around a projected surface of the inductor.

52. (Canceled)

53. (Currently amended) The ~~method~~ apparatus, as recited in claim [[24]]55, wherein the aperture is formed in an electrically conductive plate of the electrically conductive enclosure.

54. (Currently amended) The ~~method~~ apparatus, as recited in claim 53, wherein the electrically conductive plate is formed by a plurality of continuous conductive patterns, each of the continuous conductive patterns being substantially concentric with respect to the aperture.

55. (New) An apparatus comprising:

an inductor;

an electrically conductive enclosure electromagnetically shielding the inductor, the electrically conductive enclosure having an aperture at least as large as the inductor, the aperture being substantially centered around a projected surface of the inductor; and

one or more electrically conductive links extending across the aperture and electrically coupled to the electrically conductive enclosure,

wherein the aperture has an approximate diameter determined by adding an approximate outer diameter of the inductor to an approximate inner diameter of the inductor.